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SEQUENCE LISTING

<110> ONO, ETSURO
UEDE, TOSHIMITSU

<120> METHOD FOR PRODUCING A MAMMAL PROVIDED WITH RESISTANCE TO AN ALPHA-HERPES VIRUS MEDIATED INFECTION AND MAMMAL OBTAINED BY IMPLEMENTING SAID METHOD AND SAID MAMMAL'S PROGENY

<130> 86076.0071

<140> 10/530,539
<141> 2005-09-19

<150> PCT/FR03/03024
<151> 2003-10-14

<150> FR 0212775
<151> 2002-10-15

<160> 6

<170> PatentIn Ver. 3.3

<210> 1
<211> 440
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 1

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Met Glu Pro Leu Pro Gly Trp Gly Ser Ala Pro Trp Ser Gln Ala Pro
  1               5                  10                  15

Thr Asp Asn Thr Phe Arg Leu Val Pro Cys Val Phe Leu Leu Asn Leu
             20                  25                  30

Leu Gln Arg Ile Ser Ala Gln Pro Ser Cys Arg Gln Glu Glu Phe Leu
         35                  40                  45

Val Gly Asp Glu Cys Cys Pro Met Cys Asn Pro Gly Tyr His Val Lys
     50                  55                  60

Gln Val Cys Ser Glu His Thr Gly Thr Val Cys Ala Pro Cys Pro Pro
 65                  70                  75                  80

Gln Thr Tyr Thr Ala His Ala Asn Gly Leu Ser Lys Cys Leu Pro Cys
                 85                  90                  95

Gly Val Cys Asp Pro Asp Met Gly Leu Leu Thr Trp Gln Glu Cys Ser
            100                 105                 110

Ser Trp Lys Asp Thr Val Cys Arg Cys Ile Pro Gly Tyr Phe Cys Glu
        115                 120                 125
```

```
Asn Gln Asp Gly Ser His Cys Ser Thr Cys Leu Gln His Thr Thr Cys
    130                 135                 140

Pro Pro Gly Gln Arg Val Glu Lys Arg Gly Thr His Asp Gln Asp Thr
145                 150                 155                 160

Val Cys Ala Asp Cys Leu Thr Gly Thr Phe Ser Leu Gly Gly Thr Gln
                165                 170                 175

Glu Glu Cys Leu Pro Trp Thr Asn Cys Ser Ala Phe Gln Gln Glu Val
            180                 185                 190

Arg Arg Gly Thr Asn Ser Thr Asp Thr Thr Cys Ser Ser Asp Pro Glu
        195                 200                 205

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
    210                 215                 220

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
225                 230                 235                 240

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
                245                 250                 255

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
            260                 265                 270

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
        275                 280                 285

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
    290                 295                 300

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
305                 310                 315                 320

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
                325                 330                 335

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
            340                 345                 350

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
        355                 360                 365

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
    370                 375                 380

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
385                 390                 395                 400

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
                405                 410                 415

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
            420                 425                 430
```

Ser Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 2
<211> 581
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 2
Met Ala Arg Met Gly Leu Ala Gly Ala Ala Gly Arg Trp Trp Gly Leu
1 5 10 15

Ala Leu Gly Leu Thr Ala Phe Phe Leu Pro Gly Ala His Thr Gln Val
20 25 30

Val Gln Val Asn Asp Ser Met Tyr Gly Phe Ile Gly Thr Asp Val Val
35 40 45

Leu His Cys Ser Phe Ala Asn Pro Leu Pro Gly Val Lys Ile Thr Gln
50 55 60

Val Thr Trp Gln Lys Ala Thr Asn Gly Ser Lys Gln Asn Val Ala Ile
65 70 75 80

Tyr Asn Pro Ala Met Gly Val Ser Val Leu Ala Pro Tyr Arg Glu Arg
85 90 95

Val Glu Phe Leu Arg Pro Ser Phe Thr Asp Gly Thr Ile Arg Leu Ser
100 105 110

Arg Leu Glu Leu Glu Asp Glu Gly Val Tyr Ile Cys Glu Phe Ala Thr
115 120 125

Phe Pro Ala Gly Asn Arg Glu Ser Gln Leu Asn Leu Thr Val Met Ala
130 135 140

Lys Pro Thr Asn Trp Ile Glu Gly Thr Gln Ala Val Leu Arg Ala Lys
145 150 155 160

Lys Gly Lys Asp Asp Lys Val Leu Val Ala Thr Cys Thr Ser Ala Asn
165 170 175

Gly Lys Pro Pro Ser Val Val Ser Trp Glu Thr His Leu Lys Gly Glu
180 185 190

Ala Glu Tyr Gln Glu Ile Arg Asn Pro Asn Gly Thr Val Thr Val Ile
195 200 205

Ser Arg Tyr Arg Leu Val Pro Ser Arg Glu Asp His Arg Gln Ser Leu
210 215 220

Ala Cys Ile Val Asn Tyr His Met Asp Arg Phe Arg Glu Ser Leu Thr
225 230 235 240

```
Leu Asn Val Gln Tyr Glu Pro Glu Val Thr Ile Glu Gly Phe Asp Gly
                245                 250                 255

Asn Trp Tyr Leu Gln Arg Met Asp Val Lys Leu Thr Cys Lys Ala Asp
            260                 265                 270

Ala Asn Pro Pro Ala Thr Glu Tyr His Trp Thr Thr Leu Asn Gly Ser
        275                 280                 285

Leu Pro Lys Gly Val Glu Ala Gln Asn Arg Thr Leu Phe Phe Arg Gly
    290                 295                 300

Pro Ile Asn Tyr Ser Met Ala Gly Thr Tyr Ile Cys Glu Ala Thr Asn
305                 310                 315                 320

Pro Ile Gly Thr Arg Ser Gly Gln Val Glu Val Asn Ile Thr Glu Phe
                325                 330                 335

Pro Tyr Thr Pro Ser Pro Pro Glu His Ala Asp Pro Glu Glu Pro Lys
            340                 345                 350

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
        355                 360                 365

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
    370                 375                 380

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
385                 390                 395                 400

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
                405                 410                 415

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
            420                 425                 430

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
        435                 440                 445

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
    450                 455                 460

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
465                 470                 475                 480

Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln
                485                 490                 495

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
            500                 505                 510

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
        515                 520                 525

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
    530                 535                 540
```

```
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
545                 550                 555                 560

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
                565                 570                 575

Leu Ser Pro Gly Lys
            580
```

<210> 3
<211> 376
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 3

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Met Ala Arg Met Gly Leu Ala Gly Ala Ala Gly Arg Trp Trp Gly Leu
  1               5                  10                  15

Ala Leu Gly Leu Thr Ala Phe Phe Leu Pro Gly Ala His Thr Gln Val
             20                  25                  30

Val Gln Val Asn Asp Ser Met Tyr Gly Phe Ile Gly Thr Asp Val Val
         35                  40                  45

Leu His Cys Ser Phe Ala Asn Pro Leu Pro Gly Val Lys Ile Thr Gln
     50                  55                  60

Val Thr Trp Gln Lys Ala Thr Asn Gly Ser Lys Gln Asn Val Ala Ile
 65                  70                  75                  80

Tyr Asn Pro Ala Met Gly Val Ser Val Leu Ala Pro Tyr Arg Glu Arg
                 85                  90                  95

Val Glu Phe Leu Arg Pro Ser Phe Thr Asp Gly Thr Ile Arg Leu Ser
            100                 105                 110

Arg Leu Glu Leu Glu Asp Glu Gly Val Tyr Ile Cys Glu Phe Ala Thr
        115                 120                 125

Phe Pro Ala Gly Asn Arg Glu Ser Gln Leu Asn Leu Thr Val Met Gly
    130                 135                 140

Ser Val Gly Ile His Gln Pro Gln Thr Cys Pro Ile Cys Pro Gly Cys
145                 150                 155                 160

Glu Val Ala Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Pro Lys Asp
                165                 170                 175

Thr Leu Met Ile Ser Gln Thr Pro Glu Val Thr Cys Val Val Val Asp
            180                 185                 190

Val Ser Lys Glu His Ala Glu Val Gln Phe Ser Trp Tyr Val Asp Gly
        195                 200                 205
```

```
Val Glu Val His Thr Ala Glu Thr Arg Pro Lys Glu Glu Gln Phe Asn
    210                 215                 220

Ser Thr Tyr Arg Val Val Ser Val Leu Pro Ile Gln His Gln Asp Trp
225                 230                 235                 240

Leu Lys Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Val Asp Leu Pro
                245                 250                 255

Ala Pro Ile Thr Arg Thr Ile Ser Lys Ala Ile Gly Gln Ser Arg Glu
            260                 265                 270

Pro Gln Val Tyr Thr Leu Pro Pro Pro Ala Glu Glu Leu Ser Arg Ser
        275                 280                 285

Lys Val Thr Leu Thr Cys Leu Val Ile Gly Phe Tyr Pro Pro Asp Ile
    290                 295                 300

His Val Glu Trp Lys Ser Asn Gly Gln Pro Glu Pro Glu Asn Thr Tyr
305                 310                 315                 320

Arg Thr Thr Pro Pro Gln Gln Asp Val Asp Gly Thr Phe Phe Leu Tyr
                325                 330                 335

Ser Lys Leu Ala Val Asp Lys Ala Arg Trp Asp His Gly Asp Lys Phe
            340                 345                 350

Glu Cys Ala Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
        355                 360                 365

Ser Ile Ser Lys Thr Gln Gly Lys
    370                 375
```

<210> 4
<211> 578
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 4

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Met Ala Arg Met Gly Leu Ala Gly Ala Ala Gly Arg Trp Trp Gly Leu
  1               5                  10                  15

Ala Leu Gly Leu Thr Ala Phe Phe Leu Pro Gly Ala His Thr Gln Val
             20                  25                  30

Val Gln Val Asn Asp Ser Met Tyr Gly Phe Ile Gly Thr Asp Val Val
         35                  40                  45

Leu His Cys Ser Phe Ala Asn Pro Leu Pro Gly Val Lys Ile Thr Gln
     50                  55                  60
```

```
Val Thr Trp Gln Lys Ala Thr Asn Gly Ser Lys Gln Asn Val Ala Ile
 65                  70                  75                  80

Tyr Asn Pro Ala Met Gly Val Ser Val Leu Ala Pro Tyr Arg Glu Arg
                85                  90                  95

Val Glu Phe Leu Arg Pro Ser Phe Thr Asp Gly Thr Ile Arg Leu Ser
            100                 105                 110

Arg Leu Glu Leu Glu Asp Glu Gly Val Tyr Ile Cys Glu Phe Ala Thr
        115                 120                 125

Phe Pro Ala Gly Asn Arg Glu Ser Gln Leu Asn Leu Thr Val Met Ala
    130                 135                 140

Lys Pro Thr Asn Trp Ile Glu Gly Thr Gln Ala Val Leu Arg Ala Lys
145                 150                 155                 160

Lys Gly Lys Asp Asp Lys Val Leu Val Ala Thr Cys Thr Ser Ala Asn
                165                 170                 175

Gly Lys Pro Pro Ser Val Val Ser Trp Glu Thr His Leu Lys Gly Glu
            180                 185                 190

Ala Glu Tyr Gln Glu Ile Arg Asn Pro Asn Gly Thr Val Thr Val Ile
        195                 200                 205

Ser Arg Tyr Arg Leu Val Pro Ser Arg Glu Asp His Arg Gln Ser Leu
    210                 215                 220

Ala Cys Ile Val Asn Tyr His Met Asp Arg Phe Arg Glu Ser Leu Thr
225                 230                 235                 240

Leu Asn Val Gln Tyr Glu Pro Glu Val Thr Ile Glu Gly Phe Asp Gly
                245                 250                 255

Asn Trp Tyr Leu Gln Arg Met Asp Val Lys Leu Thr Cys Lys Ala Asp
            260                 265                 270

Ala Asn Pro Pro Ala Thr Glu Tyr His Trp Thr Thr Leu Asn Gly Ser
        275                 280                 285

Leu Pro Lys Gly Val Glu Ala Gln Asn Arg Thr Leu Phe Phe Arg Gly
    290                 295                 300

Pro Ile Asn Tyr Ser Met Ala Gly Thr Tyr Ile Cys Glu Ala Thr Asn
305                 310                 315                 320

Pro Ile Gly Thr Arg Ser Gly Gln Val Glu Val Asn Ile Thr Glu Phe
                325                 330                 335

Pro Tyr Thr Pro Ser Pro Pro Glu His Gly Ser Val Gly Ile His Gln
            340                 345                 350

Pro Gln Thr Cys Pro Ile Cys Pro Gly Cys Glu Val Ala Gly Pro Ser
        355                 360                 365
```

```
Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Gln
    370                 375                 380

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Lys Glu His Ala
385                 390                 395                 400

Glu Val Gln Phe Ser Trp Tyr Val Asp Gly Val Glu Val His Thr Ala
                405                 410                 415

Glu Thr Arg Pro Lys Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val
            420                 425                 430

Ser Val Leu Pro Ile Gln His Gln Asp Trp Leu Lys Gly Lys Glu Phe
        435                 440                 445

Lys Cys Lys Val Asn Asn Val Asp Leu Pro Ala Pro Ile Thr Arg Thr
    450                 455                 460

Ile Ser Lys Ala Ile Gly Gln Ser Arg Glu Pro Gln Val Tyr Thr Leu
465                 470                 475                 480

Pro Pro Pro Ala Glu Glu Leu Ser Arg Ser Lys Val Thr Leu Thr Cys
                485                 490                 495

Leu Val Ile Gly Phe Tyr Pro Pro Asp Ile His Val Glu Trp Lys Ser
            500                 505                 510

Asn Gly Gln Pro Glu Pro Glu Asn Thr Tyr Arg Thr Thr Pro Pro Gln
        515                 520                 525

Gln Asp Val Asp Gly Thr Phe Phe Leu Tyr Ser Lys Leu Ala Val Asp
    530                 535                 540

Lys Ala Arg Trp Asp His Gly Asp Lys Phe Glu Cys Ala Val Met His
545                 550                 555                 560

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Ile Ser Lys Thr Gln
                565                 570                 575

Gly Lys
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<210> 5
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 5
taactcgagc tcttggcctg aagtttc 27

<210> 6
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 6
ttaaggatcc gaggagcagg tggtgtct 28